CLAIMS

What is claimed is:

1	1.	A method for grain equalization utilizing double dotting,	
2	comprising the steps of:		
3	determining a drop weight of each die in a multi-die printhead to print		
4	a given ink;		
5	dete	ermining the highest drop weight amongst all of the dies; and	
6	dete	ermining a percentage of double dotting that is needed to	
7	substantia	lly match a grain of the highest drop weight die.	
1	2.	The method, as in Claim 1, wherein the method is further	
2	comprised of the step of:		
3	using a color compensation algorithm to equalize a color from each		
4	die.		
1	3.	The method, as in Claim 1, wherein the method is further	
2	comprised of the step of:		
3	prin	ting a test pattern.	
1	4.	The method, as in Claim 1, wherein the method is further	
2	comprised of the step of:		
3	mea	asuring a test pattern.	
1	5.	The method, as in Claim 1, wherein the method is further	
2	comprised of the step of:		
3	dete	ermining if a color density of the test pattern is satisfactory.	
1	6.	The method, as in Claim 1, wherein the highest drop weight	
2	determination step is further comprised of the step of:		
3	measuring a relative drop weight between each die for that particular		
4	color.		

1	7. The method, as in Claim 1, wherein the highest drop weight		
2	determination step is further comprised of the step of:		
3	measuring an actual drop weight between each die for that particular		
4	color.		
1	8. The method, as in Claim 1, wherein the percentage of double		
2	dotting determination step is further comprised of the step of:		
3	comparing an increase in double dotting with an increase in drop		
4	weight.		
1	9. The method, as in Claim 1, wherein the percentage of double		
2	dotting determination step is further comprised of the step of:		
3	varying the amount of double dotting employed based upon the		
4	content of the printed page.		
1	10. The method, as in Claim 1, wherein the test pattern color		
2	density determination step is further comprised of the step of:		
3	determining if a color density printed by the adjacent dies is		
4	satisfactory.		
1	11. A method for grain equalization in a print job, comprising the		
2	steps of:		
3	determining an average drop weight of each die in a multi-die		
4	printhead to print a given ink;		
5	determining the highest drop weight amongst all of the dies;		

determining a percentage of double dotting that is needed to substantially

determining if a color density of the test pattern is satisfactory.

match a grain of the highest drop weight die;

printing a test pattern; and

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1	12. The method, as in Claim 11, wherein the method is further	
2	comprised of the step of:	
3	using a color compensation algorithm to compensate for residual die	
4	to-die graininess differences.	

- 13. The method, as in Claim 11, wherein the highest drop weight determination step is further comprised of the step of:
- measuring an actual drop weight for each die for that particular color.
- 1 14. The method, as in Claim 11, wherein the highest drop weight 2 determination step is further comprised of the step of:
- measuring a relative drop weight for each die for that particular color.
- 1 15. The method, as in Claim 11, wherein the percentage of double dotting determination step is further comprised of the step of:
- comparing an increase in double dotting with an increase in dropweight.
- 1 16. The method, as in Claim 11, wherein the percentage of double dotting determination step is further comprised of the step of:
- varying the amount of double dotting employed based upon printeddensity levels.
- 1 17. The method, as in claim 11, wherein the test pattern printing 2 step is further comprised of the step of:
- 3 measuring the test pattern.

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- 1 18. A program storage medium readable by a computer, tangibly 2 embodying a program of instructions executable by the computer to perform 3 method steps for grain equalization in a print job, comprising the steps of:
- determining an average drop weight of each die in a multi-die printhead to print a given ink;
- 6 determining the highest drop weight amongst all of the dies;

- 7 determining a percentage of double dotting that is needed to substantially
- 8 match a grain of the highest drop weight die; and
- 9 printing a test pattern.
- 1 19. The program storage medium, as in Claim 18, wherein the
- 2 method is further comprised of the step of:
- 3 measuring the test pattern.
- 1 20. The program storage medium, as in Claim 18, wherein the
- 2 method is further comprised of the step of:
- 3 using a color compensation algorithm to compensate for residual die-
- 4 to-die graininess differences.
- 1 21. The program storage medium, as in Claim 18, wherein the
- 2 highest drop weight determination step is further comprised of the step of:
- measuring an actual drop weight for each die for that particular color.
- 1 22. The program storage medium, as in Claim 18, wherein the
- 2 highest drop weight determination step is further comprised of the step of:
- 3 measuring a relative drop weight for each die for that particular color.
- 1 23. The program storage medium, as in Claim 18, wherein the
- 2 percentage of double dotting determination step is further comprised of the
- 3 step of:
- 4 comparing an increase in double dotting with an increase in drop
- 5 weight.
- 1 24. The program storage medium, as in Claim 18, wherein the
- 2 percentage of double dotting determination step is further comprised of the
- 3 step of:
- 4 varying the amount of double dotting employed based upon printed
- 5 densities.

- 1 25. The program storage medium, as in Claim 18, wherein the test
- 2 pattern color density determination step is further comprised of the step of:
- 3 determining if a color density printed by the adjacent dies is
- 4 satisfactory.
- 1 26. A system for grain equalization in a print job, comprising:
- a determining means for determining an average drop weight of each
- 3 die in a multi-die printhead to print a given ink;
- a determining means for determining the highest drop weight amongst
- 5 all of the dies;
- a determining means for determining a percentage of double dotting
- 7 that is needed to substantially match a grain of the highest drop weight die;
- 8 a printing means for printing a test pattern.
- 1 27. The system, as in Claim 26, wherein the apparatus is further
- 2 comprised of:
- a means for utilizing a color compensation algorithm to equalize a color
- 4 from each die.
- 1 28. The system, as in Claim 26, wherein the highest drop weight
- 2 determination means is further comprised of:
- 3 a means for measuring an actual drop weight for each die for that
- 4 particular color.
- 1 29. The system, as in Claim 26, wherein the highest drop weight
- 2 determination means is further comprised of:
- a means for measuring a relative drop weight for each die for that
- 4 particular color.
- 1 30. The system, as in Claim 26, wherein the percentage of double
- 2 dotting determination means is further comprised of:
- 3 a means for comparing an increase in double dotting with an increase
- 4 in drop weight.

- 1 31. The system, as in Claim 26, wherein the percentage of double
- 2 dotting determination step is further comprised of the step of:
- a means for varying the amount of double dotting employed based
- 4 upon printed densities.
- 1 32. The system, as Claim 26, wherein the test pattern printing step
- 2 is further comprised of the step of:
- a means for measuring the test pattern.